

## CLAIMS

What is claimed is:

1. A network element in an optical communications network, the network element comprising:

a data collection application program interface (API) collecting topology information, said topology information being in a first format; and,

a transport network bridge in communication with the data collection API, the transport network bridge receiving a request for network topology information from a client, the request being in a second format different than the first format,

said transport network bridge obtaining the requested network topology information from said data collection API;

said transport network bridge converting the requested network topology information into the second format to define converted network topology information;

said transport network bridge providing the converted network topology information to the client.

2. The network element of claim 1 wherein the second format is Transaction Language 1 (TL1).

3. The network element of claim 1 wherein the client is a network manager.

4. The network element of claim 1 wherein the request for network topology information is a gateway node request for information identifying network elements where a channel originates or terminates on the optical communications network.
5. The network element of claim 1 wherein the request for network topology information is an end-to-end channel request for information identifying a channel originating or terminating at a specified network element.
6. The network element of claim 5 wherein the end-to-end channel request is directed to a single channel.
7. The network element of claim 1 wherein the request for network topology information is a channel trail request for information identifying channel connections along the optical communications network.
8. The network element of claim 7 wherein the channel trail request is directed to a single channel.
9. The network element of claim 1 wherein the request for network topology information is channel-client mapping request for information identifying channel connections to client equipment.
10. The network element of claim 9 wherein the channel-client mapping request is directed to a single channel.
11. A method for communicating topology information in an optical communications network, the method comprising:

collecting topology information at a data collection Application Program Interface (API), the topology information being in a first format;

receiving a request from a client at a transport network bridge for network topology information, the request being in a second format different than the first format,

the transport network bridge obtaining the requested network topology information from said data collection API;

the transport network bridge converting the requested network topology information into the second format to define converted network topology information; and,

the transport network bridge providing the converted network topology information to the client.

12. The method of claim 11 wherein the second format is transaction language 1 (TL1).

13. The method of claim 11 wherein the client is a network manager.

14. The method of claim 11 wherein the request for network topology information is a gateway node request for information identifying network elements where a channel originates or terminates on the optical communications network.

15. The method of claim 11 wherein the request for network topology information is an end-to-end channel request for information identifying a channel originating or terminating at a specified network element.

16. The method of claim 15 wherein the end-to-end channel request is directed to a single

channel.

17. The method of claim 11 wherein the request for network topology information is channel trail request for information identifying channel connections along the optical communications network.

18. The method of claim 17 wherein the channel trail request is directed to a single channel.

19. The method of claim 11 wherein the request for network topology information is channel-client mapping request for information identifying channel connections to client equipment.

20. The method of claim 19 wherein the channel-client mapping request is directed to a single channel.